

Headquarters Air Combat Command

Modernization



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10 Feb 04**

**This Briefing is:
FOUO**



Modernization

- **What it is and what it isn't**
- **Funding**
- **New Initiatives**
- **Exploratory initiatives**



Modernizing EMEDS

- **Upgrading vs. Expeditionary Modernization**
 - **Upgrading**—replacing older models, equipment with latest generation, e.g., Lifepack 12 for Lifepack 6
 - **Expeditionary modernization**—developing a new item or modifying an existing item for military unique application
- **Funding**
 - **Peacetime healthcare**—DHP (Defense Health Program)
 - **Expeditionary**—LAF (Line of the Air Force)



Modernization

- **New Initiatives**
 - **“Good Idea”**
 - **Industry inputs**
 - **After Action Reports**
 - **New threats to be countered**



New Initiatives

- **Funded or Pursuing Funding**
 - **Deployable Oxygen System (DOS)**
 - **Aeromedical Deployed Record and Reporting System (ADDRS)**
 - **Field Intravenous Solution Reconstitution (FIVR)**
 - **Haemostatic Agent for Lifesaving (HEAL)**
 - **Blood Oxygenation System (BO₂S)**
- **Exploratory Initiatives**
 - **Water Purification**
 - **Ventilator**
 - **Chemical Sterilizer**
 - **Probiotics**



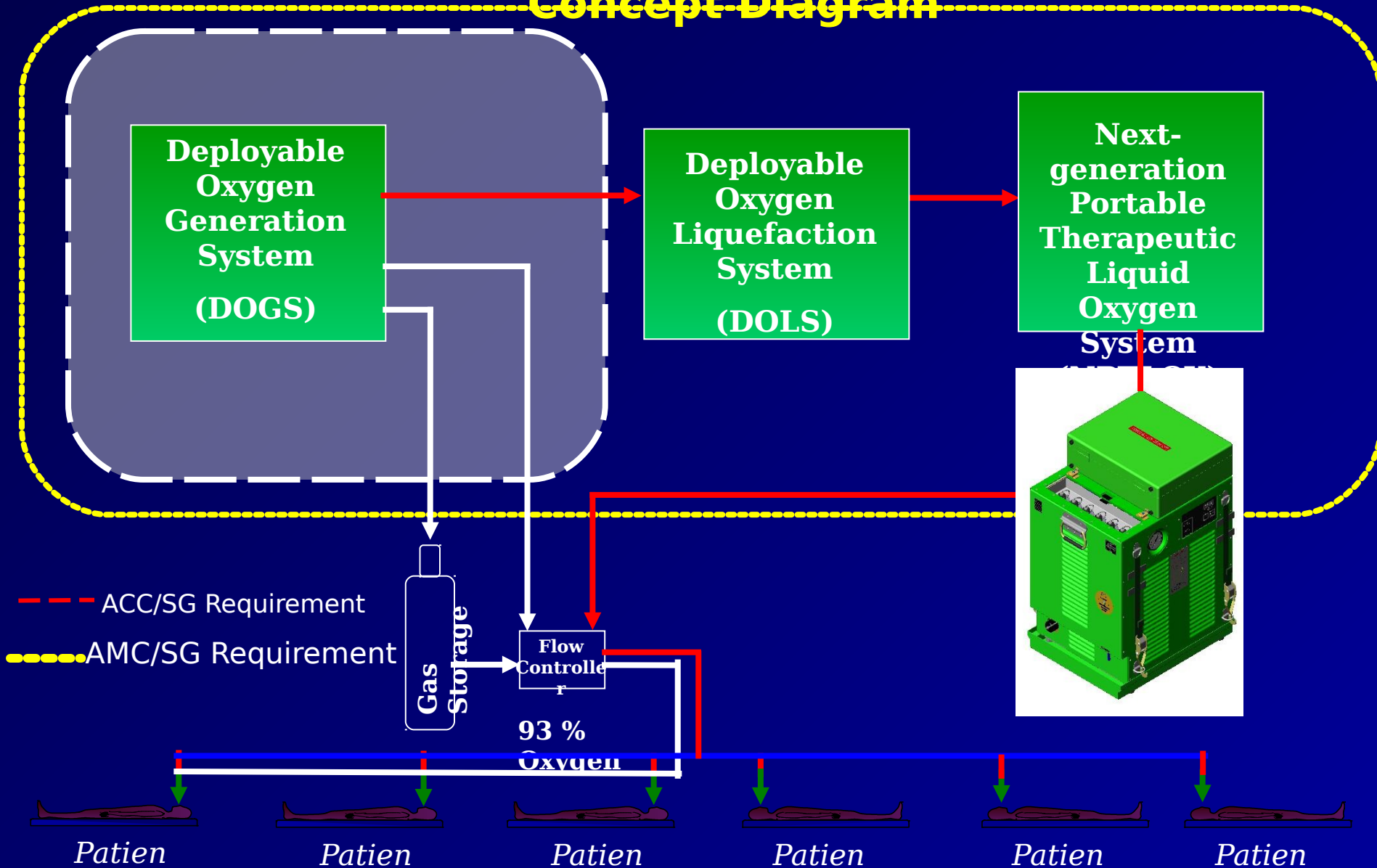
Modernization Initiatives

- **Deployable Oxygen System (DOS)**
 - **Multipart initiative**
 - **Gaseous oxygen generation**
 - **Compressed gas storage**
 - **Oxygen liquification (AMC)**
 - **EMEDS PTLOX to be replaced by on-site generation and storage**
 - **Development funded with FY05 APOM and Congressional plus-ups**



Deployable Oxygen System

Concept Diagram





Modernization Initiatives

- **Aeromedical Deployed Record and Reporting System (ADRRS a.k.a. GEMS 4.0)**
 - **Theater Occupational Module (TOM) enhancements**
 - **Develop the Automatic Report Tool & Expert Surveillance Toolkit (ARTEST)**
 - **TRAC2ES and DoD Electronic Medical Record integration**
 - **FY03 Warfighter Rapid Acquisition Program (WRAP)**
 - **Opportunity to tweak issues with GEMS 3.0**



Modernization Initiatives

- **Field Intravenous Solution Reconstitution (FIVR)**
 - **Force Protection Battlelab Proof of Concept with Baxter Laboratories developing a portable device capable of producing IV and irrigation solutions from potable water**
 - **Merges hemodialysis technology with IV solution production technology**
 - **FY04 WRAP Funding for prototype development**



Modernization Initiatives

- **Haemostatic Agent for Lifesaving (HEAL)**
 - **Superficial Wounds**
 - **Haemostatic dressing tested and evaluated for use in UTCs**
 - **Clotting powder (Quick-clot®)**
 - **Deep wound management**
 - **Factor VIIa under exploration for deep wound management**
- **FY03 WRAP funding**



Modernization Initiatives

- **Blood Oxygenation System (BO₂S)**
 - **Develop an oxygen carrying blood substitute for expeditionary use**
 - **Increased storage life and simplified logistics reduces blood inventory**
 - **Compatible with all blood types**



Modernization

- **Exploratory Initiatives**
 - **Water purification**
 - **Drinking water**
 - **Sterile water**
 - **Micro-ventilator**
 - **Does not require compressed gas**
 - **Targeting MFST, far forward UTCs**
 - **Portable sterilization**
 - **Replace steam sterilizer**
 - **Probiotics**
 - **Using “good” bacteria to counter “bad” bacteria**



Questions?